

REPORT OF THE WHITE HOUSE SCIENCE COUNCIL'S FEDERAL LABORATORY
REVIEW PANEL

This paper summarizes the report of the White House Science Council's Federal Laboratory Review Panel and proposes an Administration initiative to improve laboratory performance.

BACKGROUND:

The Federal Government owns over 700 laboratories of various sizes engaged in research, development, testing and evaluation. Most are operated by Federal employees, but some of the largest facilities are operated by contractors. Slightly more than one-third of the annual Federal R&D budget (over \$15 billion in FY 84) is allocated to these laboratories, although a portion of those funds ends up in universities and industry for activities that support the laboratories' missions. The laboratories account for about one-sixth of the nation's total annual investment in R&D. Collectively, these laboratories are a major part of our national effort to enhance our economic competitiveness and national security. Recently, several concerns about the laboratories' purposes and functions have been raised in Congress and elsewhere.

The Federal laboratories were established originally to do scientific work that could not be performed by, or was inappropriate for, the private sector and the universities, and to meet specific needs related to the missions of their parent agencies. These included the government's own R&D needs (e.g., weapons development), special national needs (e.g., agricultural and biomedical research, the development of standard weights and measures, regulatory research and testing), and basic research. The laboratories' accomplishments have been impressive, and they employ a significant fraction of the Nation's best trained and most qualified scientific and technical personnel. As a group they form a significant national resource. With the passage of time, however, many of the laboratories' original objectives have been accomplished and some of their missions may no longer be relevant or even well defined. The capabilities of both industry and the universities are also significantly greater now than when the laboratories were created. Although overlapping capabilities provide evidence of our national strength in science and technology, this situation creates problems of choice in allocating Federal resources.

In the Spring of 1982, Jay Keyworth, Science Advisor to the President, asked the White House Science Council to review the Federal laboratories and recommend actions to improve their use and performance. This review was conducted by a panel chaired by Mr. David Packard. The panel was specifically charged to look at laboratory missions, identify any systemic impediments to

performance, and determine whether this Nation is getting the optimum return on its substantial investment in talent and facilities at Federal laboratories.

The Panel's report was approved by the Science Council in May 1983 and transmitted to Jay Keyworth. Its major conclusions and recommendations are summarized below.

Report Conclusions

- o Federal laboratories have great potential but are limited by some serious deficiencies.
- o As a result of changing national needs and priorities, many Federal laboratories do not have well defined missions.
- o Noncompetitive pay and benefits at government-operated laboratories, as well as rigidity of Civil Service System, are eroding the quality of professional staff and stifling initiatives.
- o Uncertainties in laboratory funding, caused by delayed Congressional appropriations and agency indecision, impede rational planning and effective conduct of R&D.
- o In some cases, too much detailed direction of laboratory work from agency headquarters has seriously impaired R&D performance.
- o The degree of interaction with universities and industry could be increased at all Federal laboratories.

Report Recommendations

- o As a top management priority, Federal agencies should reexamine and redefine, if necessary, the missions of their laboratories.
- o A scientific/technical personnel system, independent of current Civil Service personnel systems, should be created at government-operated laboratories.
- o Congress and OMB should authorize funding for R&D on a predictable multiyear basis.
- o There should be external oversight for each laboratory to assure continuing excellence, relevance, and appropriateness of research.
- o Laboratory directors should have greater discretionary authority and be held accountable for results rather than procedures.

- o Federal laboratories should encourage much more access to their facilities by universities and industry, and should institute more personnel exchanges as well as collaborative R&D projects.

Discussion

The report notes that the deficiencies cited are not new, but their negative effects have increased to serious levels over the past decade. The Nation's return on investment is being undercut seriously by vagueness and inconsistencies in some of the laboratories' missions, and by the increasingly pervasive effects of impediments described in the report.

The report's recommendations deserve serious consideration. Implementing them will not be easy in all cases, and some require Congressional action. However, action must be taken now if we are to reverse the downward trend and begin to revitalize our Federal laboratories. This revitalization is an essential element in retaining our Nation's leadership in science and technology.

Recommendations

That the Office of Science and Technology Policy and the Office of Management and Budget be charged with implementing the central thrust of the White House Science Council's report on Federal laboratories.

That the President send a memorandum to agency heads notifying them of this initiative.